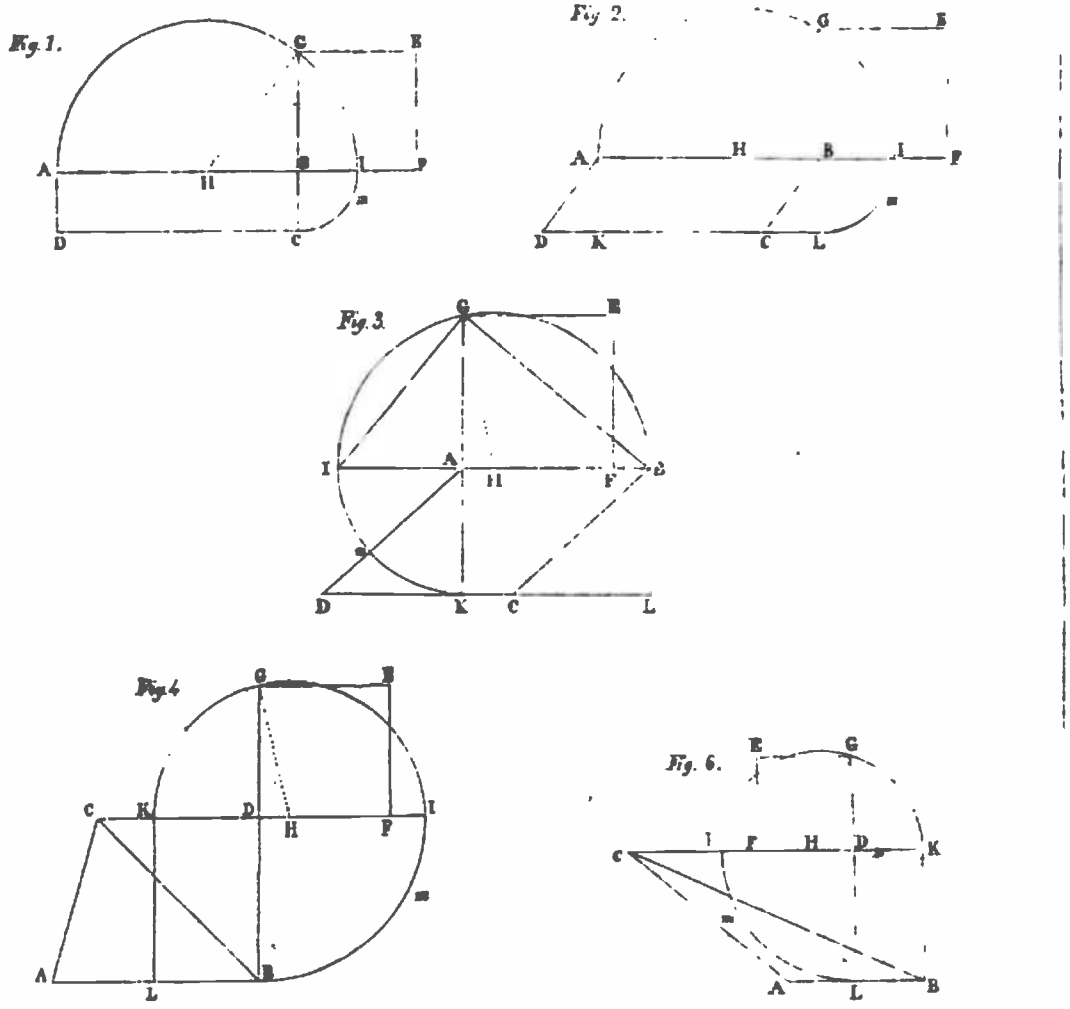
GEOMETRY OF THE SQUARE.



GOTHIC STONE CHIMNEY PIECE.

IN THE GUARD CHAMBER OF THE ANCIENT PALACE OF THE DUKES OF BURGUNDY, AT DIJON IN FRANCE.

The palace at Dijon was erected by Philip the Good, at a time when the latest French Gothic, or Flamboyant, was beginning to be debased by an admixture of Italian detail. Mr. Dawson Turner terms the style thus formed, "Burgundian:" it was wholly employed in domestic buildings; "no distinct examples of it can be dated anterior to the reign of Philip the Good, and buildings bearing its characteristics are found in all the states which were under his authority" (Britton). The fire-place illustrated, appears not a very pure specimen of any distinct style; it has an admixture of the earlier French Gothic or Rayonnant. The flat arch, the cavetto of the arch filled with running foliage, and the decorated niches on each side, are of the Flamboyant character. There does not appear to be any Italian detail at all in it. The date is probably the latter end of the 15th century. Fire-places of the Gothic period generally projected considerably into the room, having the upper portion of a pyramidal form to convey the flue into the wall. The decorated stone-work in the French example conceals this contrivance effectually, and it is probably the most elegant specimen remaining. There are several ancient Gothic fire-places with the pyramidal upper part existing, in this country, but they are all undecorated. In France, a small concealed place or chamber was often constructed behind the fire-place. The Duchess De Berry and her attendants were captured in one of these hiding-places, having crowded more into it than the space was intended to hold, and the soldiers having made a large fire in front of them.

The view given is made from materials preserved in the library of the School of Design, Somerset House. C. J. RICHARDSON.

GEOMETRY OF THE SQUARE.

INTRODUCTION.

In our last volume we inserted several papers of a useful nature on the "Conversion of Areas," with the solution of one or two problems allied to the same principle, intended to illustrate its utility in practical constructions. We have since had occasion to refer to these papers in consequence of inquiries from several of our correspondents; we therefore feel inclined to consider the subject somewhat more at large; but in the first place, it is necessary to draw the reader's attention to the following exposition of the motives which have induced us to resume the inquiry.

The object of these papers is to inculcate the universal employment of the scale and compasses in the solution of geometrical and mechanical problems, and thereby to avoid the tedium and prolixity which generally attend the necessary operations when performed by numbers. The great aversion which practical men in general have ever evinced for long and prolix numerical calculations is very well known, and in consequence of this aversion, it frequently happens, that in cases of very great importance, and where the most delicate results would be required for the purpose of ensuring efficiency and safety, no calculation whatever is made, every thing being performed at random, or at best by a rude and imperfect imitation of works already executed, which bear the least resemblance to the cases in hand; and thus it is, that so many failures occur in works, which, to appearance, are perfectly safe; whereas with a little attention to the requisite theoretical maxims, every contingency might be averted and perfect efficiency and safety readily ensured.

But it is not necessary for this purpose, that practical men should be expert calculators, a qualification which, it is to be regretted, but very few of them possess; for by a dextrous use of the scale and compasses, all the necessary operations can be performed with the greatest ease, and to a degree of accuracy more than sufficient for every practical undertaking. Nor is it necessary that the operator should be an expert geometer, for nothing is requisite beyond a knowledge of a few of the very simplest practical problems, which are to be found in every work on common mensuration.

The grand mystery of the subject lies in reducing figures, of whatever form, to one universal standard, thereby rendering the mensuration and comparison of different figures a matter of the greatest ease, and thus avoiding all tedious investigations, and all long and elaborate numerical operations.

By the adoption of this method, the ultimate

For more information on OCR and PDF Compression go to our website